2.1 Best and Final Pricing Offer—Original Proposal

Why Neustar

- **Immediate cost savings**
  - HIGHLY CONFIDENTIAL in year-one savings, and total cost savings of HIGHLY CONFIDENTIAL against an extension of the current contract
  - Additional HIGHLY CONFIDENTIAL in reductions beyond our April 5th proposal
  - HIGHLY CONFIDENTIAL contract acquisition bonus subject to execution of Master Agreements by June 30th 2014
- **Zero financial, operational, and strategic risk** to the Industry and consumers
  - SOW's, technology upgrades, and regulatory mandates included in fixed price
  - Certainty of continued stability and performance enabling $64 billion in subscriber revenue annually
  - Uninterrupted focus on critical industry success-drivers, including IP network transition, 4G rollouts, and M&A
- **Avoids a minimum of $1.6 billion** in transition costs
  - Over two years planning and executing transition, additional two years restoring full performance
  - Costs of transition exceed benefits to Industry at virtually any price from another vendor

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Neustar's attached Best and Final Offer (BAFO) provides improved financial terms to the Industry at zero risk—delivering guaranteed technical and operational reliability, unmatched LNPA experience, and corporate-wide commitments to data privacy, information security, and neutrality.

Awarding Neustar the contract for U.S. LNPA Services guarantees the Industry's ability to maintain focus on critical business priorities. It eliminates the substantial costs and risks of a complex Industry-wide transition which could consume Industry resources for as long as four years. For the majority of Service Providers, the transition costs exceed any pricing benefit offered by an alternate vendor.

Improved Pricing Terms

The terms of Neustar's BAFO further extend the value and cost savings outlined in Neustar's April 5th proposal. These substantial improvements are summarized as follows:

- Extends year-one **savings to** HIGHLY CONFIDENTIAL reducing 2016 Industry fees to pre-2012 levels;
- Introduces approximately HIGHLY CONFIDENTIAL compared to initial proposal, totaling HIGHLY CONFIDENTIAL in savings from an extension of Neustar's current contract;
- Offers HIGHLY CONFIDENTIAL contract acquisition bonus based on timely execution of Master Agreements, incremental to all other savings described in this BAFO; and
- **Includes Industry SOWs** at no additional charge as part of the fixed rate (elimination of the SOW Allocation proposed in the initial proposal).

Neustar continues to propose a fixed rate (with no floors or ceilings), which provides 100% cost certainty and unlimited use of the NPAC/SMS. Neustar's revised proposal for Allocable Charges, as compared to the initial proposal, is set forth in the table below:

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As an added incentive for the NAPM, LLC's execution of the new Master Agreements for all U.S. regions **prior to June 30, 2014**, Neustar also proposes an incremental HIGHLY CONFIDENTIAL **contract acquisition bonus**, payable to the Industry in accordance with the Allocation Model within calendar years 2014 and 2015.

Neustar has provided an alternative pricing proposal as a response to BAFO Survey Question 2.2, which assumes elimination of incentive credits while also incorporating all SOWs into the fixed price. However, Neustar believes that our response to BAFO Question 2.1 provides the most value to Service Providers, by maximizing year-one savings and providing a foundation for the greatest utility by the Industry.

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[1] HIGHLY CONFIDENTIAL

[2] 12-month periods commencing with new contract term, the anniversary of which ends each year on June 30.

[3] Consistent with fixed and incentive pricing structure as outlined in Neustar's April 5th proposal, with reduced yearly Industry Fixed Rate.

As demonstrated in the chart below, the proposed credits and discounts maximize the Industry savings in year-one of the new contract (contract acquisition bonus is **not** reflected below).

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HIGHLY CONFIDENTIAL

As demonstrated below, Neustar's April 5th proposal delivers substantial improvements over Neustar's existing contract; each of these, along with all other commitments in the proposal, remains intact in our BAFO.

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Guaranteed Performance and Value

Neustar delivers a full-service solution that enables billions of dollars in subscriber revenue each year. In addition, with over 15 years as the U.S. LNPA, Neustar has developed a level of institutional knowledge to support Service Providers in executing their most complex network transitions. In the face of unprecedented changes as Service Providers migrate to an all-IP future, the performance of the NPAC/SMS and Neustar's total service commitment will be critical to the Industry's success.

Industry Benefit:	Billions in subscriber acquisition
Neustar Offers:	Highly reliable and available technology solution *- 99.94% SLR Achievement, 2008-2012* *- 4.54 / 5 (Best in Class) Technology Audit 2012*

The Industry spends over $7 billion[5] each year on advertising to acquire new customers. As a result, over 50,000 new subscribers port their telephone numbers to new Service Providers every day—approximately half of all new wireless postpaid consumers. Taking into account rising revenue per subscriber, and increasing average contract lengths, this represents over $64 billion in value acquired through portability annually.

[4] Subject to the qualifications detailed in Neustar's April 5th proposal and this Best and Final Offer

[5] Kantar Research September 2013

Today, Service Providers enjoy complete confidence in the reliability of Neustar and the NPAC/SMS when planning and executing major launches and product rollouts. Any reduction in performance will get in the way of acquiring new customers, increase Service Provider expenses, and jeopardize opportunities to secure new revenue.

Industry Benefit:	55,000 essential network projects executed at 99.9% accuracy
Neustar Offers:	Over 420 years of U.S. LNPA experience *- 3.84/4 2012 User Survey scores* *- Monitors the health of the entire LNP ecosystem*

The NPAC/SMS is the only real-time service for U.S. carriers that universally distributes authoritative routing and rating data, ensuring successful delivery of voice calls and messages. As a result, Service Providers engage Neustar and the NPAC/SMS to perform over 1,000 network management requests each week. More than 60% require Neustar's experts to convert Users' business and network requirements to actionable requests, as well as provide program management across all constituents, offer quality assurance, and address fallout—thereby minimizing costs to the Industry and ensuring successful execution.

The Mass-Update/Mass Port capability was designed and implemented by Neustar to support NPAC/SMS Users, and is relied upon by hundreds of Service Providers as an essential element of their network management processes. (It is not, however, defined in the NPAC/SMS specifications nor is it a requirement in the RFP.) Major Service Provider projects that have leveraged the NPAC/SMS in the last several years include:

- **Moving tens of millions of mobile subscribers** from 2G to 3G networks;
- **Complying** with U.S. Department of Justice **directives** to divest facilities and subscribers;
- **Assigning 15 million CLEC TNs** to a VoIP provider, enabling correct porting procedures and law enforcement compliance;
- **Restoring** service to **hundreds of thousands of subscribers** after Hurricane Katrina, following the destruction of critical central office facilities;
- Improving network resiliency for essential customers in preparation for Hurricane Sandy;
- Using the NPAC URIs for authoritative, Industry **"whitelisting" of millions of SMS users**;
- **Migrating millions of TNs** with new routing instructions as a step to decommission legacy network facilities;
- **Optimizing internal SIP-routing policies** via LRN assignments to enable migration from TDM to IP soft-switches; and
- Establishing a hybrid TDM/IP routing solution for a major CLEC, **enabling a customer-centric migration plan for twenty-five million TNs** over nine months.

A new vendor will not have the LNPA service experience nor Neustar's deep level of Industry expertise to support projects such as those listed above.

Industry Benefit:	Uninterrupted focus on future network and service delivery requirements
Neustar Offers:	Demonstrated record of supporting industry technology evolution *- 1.6 million URIs populated in 2013 in support of network transitions*

As discussed in recent LNPA forums, the Industry, FCC, and individual NPAC/SMS Users are currently pursuing aggressive strategies with material implications for the future of numbering and network administration—most notably, to the migration to all-IP networks. This activity is expected to drive exponential NPAC/SMS demand, while completely transforming Service Provider network and back-office systems.

A stable and secure foundation of technology, personnel, and process is essential to the Industry's ability to embrace changes of this magnitude—only Neustar is able to deliver upon this foundation on Day 1 of the next contract. In recent years, Neustar has applied its leadership and expertise in the Industry to drive additional value and utility from the NPAC/SMS, while adhering to the Industry's top priorities of stability and zero adverse impact to subscribers. Over the next term, Neustar has committed to invest in the NPAC/SMS at zero extra charge to the Industry to support essential strategic requirements:

- Deploying tens of millions of subscribers to **next generation network technology** such as 4G wireless and cloud-based communications;
- Modifying networks and inventories to account for **substantial M&A consolidations and divestitures;**
- Establishing a national **IP interconnection registry** that drives the broadest Service Provider adoption at the lowest cost;
- Serving **up to 500 million additional connected devices** by 2018 which require telephone numbers, including M2M; and
- Introducing **new security and authentication mechanisms** for telephone numbers to protect subscribers against spoofing, slamming, and spamming.

Costs of Transition

A transition of LNPA services to a new vendor would be a complex, high-risk effort with broadly distributed costs and no reasonable expectation of success. The Industry has consistently insisted upon stability of operations, low impacts to surrounding systems and networks, and zero adverse effects on subscribers. Choosing an Industry-wide cutover to a vendor with no relevant production experience will most certainly violate all three of these priorities and divert resources and Industry attention away from revenue-generating business priorities. HIGHLY CONFIDENTIAL

A new NPAC/SMS implementation and transition would be far more complex and difficult than any coordinated implementation attempted by the Industry in the past:

- Unlike One-Day-Porting (which took 18 months) and WICIS 4.0 (which took 3 years), the entire Industry—over 1,000 Service Providers and their agents—would need to execute on a single schedule, necessitating complete precision of contingency planning and testing;
- Transitioning the NPAC/SMS would be a wholesale replacement of infrastructure to a new environment not yet hardened by any production experience—not an incremental enhancement to existing systems;
- Transition would require building not only NPAC/SMS technology, but also all essential LNPA services not currently detailed in the RFP—all of which would need to be designed and developed for continuity with the current service;
- Transition will require the transfer of over 750 Service Providers and vendor network connections to production, test, and disaster recovery facilities; and
- Transition will require the conversion and migration of hundreds of millions of **NPAC/SMS records, containing 12.1 billion mission-critical data elements**. Even small errors in conversion will impact millions of consumers.

All Service Providers and vendors will incur costs associated with an LNPA transition, including parties without regular participation in Industry forums. For the majority of carriers, these costs are unbudgeted and will outweigh any conceivable pricing benefit offered by an alternative vendor.

The material costs and risks associated with an LNPA transition are covered in four major categories, each of which factor in the Industry's assessment of competing offers—Implementation Costs, Scheduling and Governance, Subscriber Impacts, and Opportunity Cost.

How bad could an LNPA transition be? Ask United Airlines...

In 2012, United Airlines executed its long-planned cutover to a merged reservation system with Continental Airlines. In preparation, the company conducted extensive end-to-end systems testing. CEO Jeff Smisek was so confident of success that a few weeks before the transition, in an earnings call, he said "We've had four full-scale dress rehearsals, all the data transfers...we are exceedingly well prepared for it."

Instead, the migration was an unmitigated failure.

- On Day 1, over 70% of United flights from their airport hubs were delayed or cancelled.
- Phone lines were jammed and sales agents were confused. Travel agents publicly pilloried the company.
- Instability in the platform persisted for months on end. In fact, six months after the transition, a complete worldwide systems outage occurred that shut down, service and stranded thousands of flyers.
- United lost $723 million in 2012 – a swing of $1.6 billion from the previous year. Management blamed most of its financial problems on transition issues.
- In April 2013, the premier airline customer service survey reported United dead last in all customer service categories.
- United's Airline Quality Rating fell from -1.45 to -2.18 from 2011 to 2012. To this day, United's customer service ratings remain the worst in their industry.
- In the period following the transition, United was the subject of 34% of all airline industry complaints and 45% of refunds – increases of approximately 50% over the prior year.

Implementation Costs—Implementation of a technology infrastructure the size and complexity of the NPAC/SMS would take an experienced team a minimum of one year to develop, and one year to test. A new LNPA vendor can either use Neustar's software code as a baseline (recognizing that it is custom-tailored for Neustar's production environment and requires modification to meet increased SLRs) or develop and test a new platform and application from scratch, introducing considerable extra risk in delivering a compliant system by June 2015. Either way, the new vendor must define procedures for system performance monitoring and reporting, tailored to its own data center and network environment.

The NANC, the NAPM, LLC, and the LNPA Working Group are ultimately responsible for validating that the new NPAC/SMS behaves and performs exactly as the one operated by Neustar today. In addition, the Industry must fully define and ensure the successful delivery of the full array of LNPA requirements currently relied upon by Service Providers, vendors, regulators, law enforcement agencies, and consumers. These services will all need to be defined and implemented separately, before Day 1.

LNPA Requirements Not Fully Defined in RFP Specifications

LNPA Service	Industry Needs
[redacted]	
Billing & Collections	Regional and Service Provider allocations and invoice processing—over 10,000 bills delivered each month
[redacted]	
LNP Enhanced Analytical Platform	Law Enforcement/Public Safety support
[redacted]	
NPAC.com	User registration and authorization, Service Provider knowledge base, Industry document registry

The new LNPA must also, with the Industry's assistance, establish all non-software elements of the service—each of which must be documented and detailed by the Industry, including Industry change administration, new user administration, Service Provider testing and training, performance monitoring and audits, and a comprehensive Neutrality program for employees, managers, and investors.

Scheduling and Governance—With only 15 months remaining between the FCC's LNPA selection and the start of the new contract term, the Industry lacks sufficient time to execute a transition to a new vendor. No transition will be complete until **ALL** Service Providers and their vendors are able to interoperate with the NPAC/SMS and the LNPA in the manner they do today—which implies that the entire schedule is dependent upon the last of over 1,000 Service Providers to successfully transition. This requires the industry to appoint a single Project Manager that has the authority to make decisions on behalf of over 1,000 companies. The original RFP timeline allowed 30 months for all necessary tasks. Neustar estimates that it will take a minimum of 29 months given the impacts of a transition to all aspects of Service Provider operations. An extension of Neustar's contract for one year beginning July 1, 2015 will drive additional Industry expenses of HIGHLY CONFIDENTIAL

LNPA Transition Will Take 2½ Years Following Final Approval of Selection

Phase	Minimum Duration	Tasks and Impacts
[redacted]		
Implementation	8 months	• Build and test new NPAC/SMS • Define and document all LNPA services not specified in the RFP • Configure/enhance SOAs and LSMSs to connect to new NPAC/SMS, and multiple NPAC/SMSs during regional overlap • Establish new performance monitoring and reporting • Define and certify neutrality program and other service audits
[redacted]		
Testing	8 months	• Most critical and iterative phase of transition • Multiple sequential steps: functional acceptance testing, performance and stress testing, vendor testing, Service Provider/end-to-end testing, and multiple "dry-runs" of final cut-over • Testing for all LNPA services ancillary to the NPAC/SMS
[redacted]		
TOTAL	**29 months**	• **Final cutover in July 2016 assuming start date of FCC approval of selection in January 2014**

Note: alternative vendors are likely to claim that ancillary experience—offering NPAC simulators, SOA platforms, or international LNP—constitute relevant experience in U.S. LNP administration that can compress the transition timeline. This claim should be treated with the appropriate skepticism, given the unique functional and performance profile of the U.S. NPAC/SMS.

Subscriber Impacts—Although testing is critical prior to transition, there is no substitute for time and real-world experience to deliver stability and consistent performance. It took several years for Neustar to reach today's performance level, in a substantially simpler environment than what exists today. The Industry should assume at least two years of degraded performance AFTER transition is finally complete.

The impacts to consumers and Service Providers resulting from instability will be considerable, and issues that arise during transition for one Service Provider are certain to ripple throughout the rest of the Industry. Attached to Neustar's April 5th proposal is an analysis developed by Navigant Economics that provides a comprehensive assessment of the direct costs and subscriber impacts of a transition to a new vendor. Navigant's analysis assumes 99.98% accuracy on the initial database conversion, and 99.7% accuracy on broadcast transactions in the first year, and concludes that over **7 million subscribers** will be **impacted** in the **first year** of transition due to porting delays, misrouted calls, or other service failures. This results in over **$719 million in direct costs and service credits**. If the Industry takes more than one year to restore stability to the LNPA service, these costs **rise to over $1 billion**.

In addition to the direct costs of data errors and broadcast failures, degradation in the porting experience has direct impacts on Service Provider revenue. A small percentage of porting subscribers (less than one percent in the Navigant model) will experience such severe issues in the porting experience that they will abandon their interest in switching providers. Lifetime **gross profit** for these subscribers is equivalent to **another $410 million in the first year** of transition.

Opportunity Costs—Transition to a new vendor will involve two years of planning and execution, and a further two years of instability and issue resolution, resulting in a **total of four years** (until 2018) during which the Industry will have limited capacity to focus on their strategic business priorities—including IP migrations, M&A, and revenue-generating innovation.

Cost and Risk Analysis

The analysis below shows that the transition costs and risks as previously described exceed any financial advantage gained over the next contract term from selecting an alternative vendor—even at half Neustar's Best and Final Offer. For smaller regional or multi-Service Providers, the analysis indicates that there is no competitive price that makes a transition financially attractive.

No Financial Advantage From Transition—Even at Half Neustar's BAFO

	Full Industry	Typical Regional or Multi-Service Provider
[redacted]		
Subscribers	~400M	~7M
Telecommunications revenue	~$300B	~$5B
[redacted]		
Extended Neustar contract & transition services	HIGHLY CONFI	$6M
Subscriber Impacts: Customer Care & operations	$719M	$14M
Subscriber Impacts: Customer acquisition	$410M	$8M
Total	HIGHLY CONFIDEN	**$28M**
[redacted]		

All Reward and No Risk

- By selecting Neustar, the Industry receives the following benefits, immediately and at zero risk
  - Year-one price reductions of over HIGHLY CONFIDENTIAL ; over HIGHLY CONFIDENTIAL in total savings from existing contract
  - HIGHLY CONFIDENTIAL acquisition bonus based on timely contract execution
  - Certainty of continued performance and value—underpinning billions of dollars in revenue from acquired customers and flawless network transactions
  - An experienced management team with over 420 years of experience successfully serving as the U.S. LNPA
  - A stable and secure partner in the execution of critical Industry priorities—including M&A and the migration to IP
  - Complete confidence in the LNPA's commitments to neutrality, information security, and data privacy
- By contrast, the full costs of choosing an untested alternate vendor include:
  - A high-risk and disruptive transition process, lasting at least four years and costing the Industry over $1 billion
  - Prolonged subscriber impacts resulting from instability, performance degradation, and service gaps
  - A multi-year incapacity to focus on essential Industry change
  - Unknown future compromises in neutrality and transparency

By selecting a vendor other than Neustar, the Industry will incur greater expense in contact extensions, subscriber instability, and opportunity cost each and every year until 2018. This is the case for the Industry as a whole—and for most Service Providers, given their dependency on the continued high performance of Neustar and NPAC/SMS, there is no benefit to a transition at any price.

Neustar again thanks the FoNPAC and the NAPM, LLC for its consideration in the procurement of LNPA services. We are confident that the attached proposal provides the overall best value and least risk to U.S. Services Providers and consumers, and are prepared to answer any additional questions the selectors have about our offer.

Appendix A: Evaluation Criteria

The following table describes Neustar's qualifications and commitments against the RFP's Evaluation Criteria.

Criterion	How Neustar Meets/Exceeds Requirements
Factor 1: Operational Performance	• Proven levels of excellence delivering core functions today (Proposal Section 1.1): o Service and operations **are fully compliant** today with neutrality requirements o Provides over 100 monthly reports with **100% accuracy** o Issues over **11,000** invoices each month with **over 99.5%** accuracy o Resolves over 80% of Industry calls at the first tier of Customer Support o Successfully **managed and implemented over 450 NANC change orders** and well over 100 Illinois change orders o Supports Industry testing, with over **4,200 hours of support** in 2012 alone, **scoring 3.8 out of 4** in third-party audit for knowledge, responsiveness, availability, management, etc. • Value-added, proactive functions such as (Proposal Section 1.1): o Provisions customer requests (e.g., creates, activates, modifies, SPID migrations, Mass updates/port requests, NPA splits, etc) with **>99.9% accuracy**; over 55,000 MUMP requests processed in 2012 o Service Management proactively monitors entire connected ecosystem notifying SPs of slowness in their systems o Unmatched expertise and Industry knowledge provided via the npac.com website, Industry meetings, Industry notifications, and training offerings o Proactive disaster preparedness (via increased coverage, proactive notifications, enabling virtual routing, etc..) and efficient disaster recovery services that maximize Industry service delivery in times of disaster • **NEW** NPAC Portal with a consolidated interface and greater automation, robust real-time reporting, chat with an expert, e-invoicing and a market-leading Information Analytics Platform • **NEW** Enhanced testing capabilities for Industry self service/self certification • **NEW** Dedicated 24x7x365 customer support • **NEW** Enhanced suite of training modules • **Zero operational implementation** required (Proposal Section 1.6)
Factor 2: Reliability and Functionality	• Fully compliant **today** with all RFP requirements; over the last five years, **met or exceeded** Industry's 27 SLRs **99.94%** of the time (Proposal Section 1.2) • **Zero transition required** and accompanying risks/costs avoided (Proposal Section 1.6) • Customized Approach to Operational Excellence (Proposal Section 1.3) o Design, engineering, and operations teams within a single Neustar entity, in the United States, to maximize performance and accountability o Security-Related Information o Continual technical refreshes prior to identified end of life—Replaced every component of the NPAC at least twice in the last eight years • ISO-certified Disaster recovery process and successful completion of annual fail over exercise for the past 10 years (Proposal Section 1.2.4) • **NEW** Increased automation/refinements to meet new SLRs (Proposal Section 1.2.1/1.2.2) • **NEW** Additional ISO certifications—TL 9000 Quality Management System; ISO 27001—Information Security; and ISO 22301—Business Continuity (Proposal Section 1.3) • **NEW** All required enhancements stated in RFP Section 7.0 including Security Related Information, support of IPv6, and elimination of NPAC/SMS support of Non-EDR (Proposal Sections 1.2.2, 1.5) • **NEW** Unmatched ability to implement "future considerations" detailed in RFP Section 7 with the least amount of risk and the highest levels of quality and results (Proposal Sections 1.2.2, 1.5) • **NEW** Expanded capabilities and services driving incremental value to SPs and Consumers (Proposal Section 1.5)

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Criterion	How Neustar Meets/Exceeds Requirements
Factor 3: Security-Related In	Security-Related Information
[redacted]	
Factor 1: Customer Service	• Proven service-oriented, neutral approach to serving as the LNP Administrator measuring customer satisfaction via: ○ Third-party, Industry-wide Annual NPAC User Survey (Proposal Section 2.5) ○ Transactional based surveys after each interaction with the Help Desk, Customer Connectivity Services, and MUMP teams ○ NPAC.com real-time feedback mechanisms • Received **3.84 out of 4.00 Overall Customer Satisfaction** Rating for U.S. LNPA services in 2012 (Proposal Section 2.5)
Factor 2: Vendor Experience and Performance	• History of serving of successfully providing Industry-wide, neutral third-party services for the Communications Industry and Government (Proposal Sections 2.1—Corporate Capabilities Table by evaluation criteria) • **Unmatched breadth and depth of experience** designing, developing, implementing/deploying, operating, and maintaining a LNP Administration Service and Systems **UNIQUE to the United States** in terms of stakeholders, types of portability, SLRs, Services required, neutrality requirements, transaction types and volumes, etc… (Proposal Section 2.4) • Unmatched experience in designing, implementing, and operating within a strict, audited neutrality environment—**no neutrality cure required** (Proposal Sections 2.3) • LNPA team has **over 420 years of direct LNP experience** (Proposal Sections 1.1, 1.2, 1.3, and 2.4)
Factor 3: Financial Stability	• LNPA contract is material to our business, and as a public company, provides rare financial and operation reporting and insight (Proposal Section 2.2) • Large enough to offer stability and reliability; small enough that the LNPA service remains primary focus of company (Proposal Section 2.2) • Not controlled by any foreign entities; operates LNPA contract within the United States (Proposal Section 2.2) • U.S. company respecting and adhering to U.S. laws and regulations (Proposal Section 2.2)
[redacted]	
	• HIGHLY CONFIDENTIAL • Fixed price with 100% cost certainty • Effective per transaction rate reduction of HIGHLY C • Increase in SLR/GEP penalties • Increase in Performance bonds commitments • Millions in savings from simplified, reduced, and eliminated "Direct Charges" • Avoids over $1.6 billion in unplanned and unbudgeted expense related to Industry transition

Note: In submitting this response to the FoNPAC's BAFO survey, Neustar acknowledges and agrees to all of the terms and conditions set forth in all of the RFP surveys, including the RFP Survey, VQS, TRD Survey, and this BAFO Survey to the same extent that it did in its April 5, 2013 response, unless otherwise stated in this response. In its February 20, 2013 answer to Question #3, submitted on February 19, 2013 through the IASTA tool, the FoNPAC indicated that failure to agree with one or more of the terms and conditions does not disqualify a vendor from consideration. There has been no further communications with Respondents that supersedes this guidance.

Appendix B: RFP Pricing Compliance Table

The following corresponds to the Compliance Table from RFP Section 14.2. The Direct Charges from our April 5th submission have not changed.

Allocable Charges Compliance Table (in millions)

	Year 2015-2016	Year 2016-2017	Year 2017-2018	Year 2018-2019	Year 2019-2020	Year 2020-2021	Year 2021-2022
Allocable Industry Flat Fee in U.S. Dollars for All Combined NPAC Regions	HIGHLY CONFIDENTIAL						
Allocable Industry Flat Fee in U.S. Dollars for MidAtlantic NPAC Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for MidWest NPAC Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for NorthEast NPAC Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for SouthEast NPAC Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for SouthWest Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for West Coast NPAC Region	NA	NA	NA	NA	NA	NA	NA
Allocable Industry Flat Fee in U.S. Dollars for Western NPAC Region	NA	NA	NA	NA	NA	NA	NA
Optional Regional Combination (must identify Regions)	NA	NA	NA	NA	NA	NA	NA

NOTE: Assumes the Industry earns maximum Incentive Credits

2.2 Best and Final Pricing Offer— Best and Final Offer for National Fixed Rate Pricing—Option A

Why Neustar

- **Immediate cost savings**
  - [redacted] in year-one savings, and total cost savings of [redacted] against an extension of the current contract
  - Additional [redacted] in reductions beyond our April 5th proposal
- **Zero financial, operational, and strategic risk** to the Industry and consumers
  - SOW's, technology upgrades, and regulatory mandates included in fixed price
  - Certainty of continued stability and performance enabling $64 billion in subscriber revenue annually
  - Uninterrupted focus on critical industry success-drivers, including IP network transition, 4G rollouts, and M&A
- **Avoids a minimum of $1.6 billion** in transition costs
  - Over two years planning and executing transition, additional two years restoring full performance
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Awarding Neustar the contract for U.S. LNPA Services guarantees the Industry's ability to maintain focus on critical business priorities. It eliminates the substantial costs and risks of a complex Industry-wide transition which could consume Industry resources for as long as four years. For the majority of Service Providers, the transition costs exceed any pricing benefit offered by an alternate vendor.

Improved Pricing Terms

The terms of Neustar's BAFO further extend the value and cost savings outlined in Neustar's April 5th proposal. These substantial improvements are summarized as follows:

- Extends year-one **savings to** [redacted];
- Introduces approximately [redacted] **in additional savings** compared to initial proposal, totaling [redacted] in savings from an extension of Neustar's current contract; and
- **Includes Industry SOWs** at no additional charge as part of the fixed rate (elimination of the SOW Allocation proposed in the initial proposal).

Neustar continues to propose a fixed rate (with no floors or ceilings), which provides 100% cost certainty and unlimited use of the NPAC/SMS. Neustar's revised proposal for Allocable Charges, as compared to the initial proposal, is set forth in the table below:

[redacted]

While we have provided a response to this question, we believe our response to BAFO Question 2.1 provides the most value to Service Providers, by maximizing year-one savings and providing a foundation for the greatest utility by the Industry.

[redacted]

[2] 12-month periods commencing with new contract term, the anniversary of which ends each year on June 30.

[3] Does not include any fixed or incentive credits.

As demonstrated in the chart below, the proposed credits and discounts maximize the Industry savings in year-one of the new contract.

[redacted]

[redacted]

[redacted]

[redacted]

As demonstrated below, Neustar's April 5th proposal delivers substantial improvements over Neustar's existing contract; each of these, along with all other commitments in the proposal, remains intact in our BAFO.

[redacted]

Guaranteed Performance and Value

Neustar delivers a full-service solution that enables billions of dollars in subscriber revenue each year. In addition, with over 15 years as the U.S. LNPA, Neustar has developed a level of institutional knowledge to support Service Providers in executing their most complex network transitions. In the face of unprecedented changes as Service Providers migrate to an all-IP future, the performance of the NPAC/SMS and Neustar's total service commitment will be critical to the Industry's success.

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Neustar Offers:	Highly reliable and available technology solution *- 99.94% SLR Achievement, 2008-2012* *- 4.54 / 5 (Best in Class) Technology Audit 2012*

The Industry spends over $7 billion[5] each year on advertising to acquire new customers. As a result, over 50,000 new subscribers port their telephone numbers to new Service Providers every day—approximately half of all new wireless postpaid consumers. Taking into account rising revenue per subscriber, and increasing average contract lengths, this represents over $64 billion in value acquired through portability annually.

[4] Subject to the qualifications detailed in Neustar's April 5th proposal and this Best and Final Offer

[5] Kantar Research September 2013

Today, Service Providers enjoy complete confidence in the reliability of Neustar and the NPAC/SMS when planning and executing major launches and product rollouts. Any reduction in performance will get in the way of acquiring new customers, increase Service Provider expenses, and jeopardize opportunities to secure new revenue.

Industry Benefit:	55,000 essential network projects executed at 99.9% accuracy
Neustar Offers:	Over 420 years of U.S. LNPA experience *- 3.84/4 2012 User Survey scores* *- Monitors the health of the entire LNP ecosystem*

The NPAC/SMS is the only real-time service for U.S. carriers that universally distributes authoritative routing and rating data, ensuring successful delivery of voice calls and messages. As a result, Service Providers engage Neustar and the NPAC/SMS to perform over 1,000 network management requests each week. More than 60% require Neustar's experts to convert Users' business and network requirements to actionable requests, as well as provide program management across all constituents, offer quality assurance, and address fallout—thereby minimizing costs to the Industry and ensuring successful execution.

The Mass-Update/Mass Port capability was designed and implemented by Neustar to support NPAC/SMS Users, and is relied upon by hundreds of Service Providers as an essential element of their network management processes. (It is not, however, defined in the NPAC/SMS specifications nor is it a requirement in the RFP.) Major Service Provider projects that have leveraged the NPAC/SMS in the last several years include:

- **Moving tens of millions of mobile subscribers** from 2G to 3G networks;
- **Complying** with U.S. Department of Justice **directives** to divest facilities and subscribers;
- **Assigning 15 million CLEC TNs** to a VoIP provider, enabling correct porting procedures and law enforcement compliance;
- **Restoring** service to **hundreds of thousands of subscribers** after Hurricane Katrina, following the destruction of critical central office facilities;
- Improving network resiliency for essential customers in preparation for Hurricane Sandy;
- Using the NPAC URIs for authoritative, Industry **"whitelisting" of millions of SMS users**;
- **Migrating millions of TNs** with new routing instructions as a step to decommission legacy network facilities;
- **Optimizing internal SIP-routing policies** via LRN assignments to enable migration from TDM to IP soft-switches; and
- Establishing a hybrid TDM/IP routing solution for a major CLEC, **enabling a customer-centric migration plan for twenty-five million TNs** over nine months.

A new vendor will not have the LNPA service experience nor Neustar's deep level of Industry expertise to support projects such as those listed above.

Industry Benefit:	Uninterrupted focus on future network and service delivery requirements
Neustar Offers:	Demonstrated record of supporting industry technology evolution *- 1.6 million URIs populated in 2013 in support of network transitions*

As discussed in recent LNPA forums, the Industry, FCC, and individual NPAC/SMS Users are currently pursuing aggressive strategies with material implications for the future of numbering and network administration—most notably, to the migration to all-IP networks. This activity is expected to drive exponential NPAC/SMS demand, while completely transforming Service Provider network and back-office systems.

A stable and secure foundation of technology, personnel, and process is essential to the Industry's ability to embrace changes of this magnitude—only Neustar is able to deliver upon this foundation on Day 1 of the next contract. In recent years, Neustar has applied its leadership and expertise in the Industry to drive additional value and utility from the NPAC/SMS, while adhering to the Industry's top priorities of stability and zero adverse impact to subscribers. Over the next term, Neustar has committed to invest in the NPAC/SMS at zero extra charge to the Industry to support essential strategic requirements:

- Deploying tens of millions of subscribers to **next generation network technology** such as 4G wireless and cloud-based communications;
- Modifying networks and inventories to account for **substantial M&A consolidations and divestitures;**
- Establishing a national **IP interconnection registry** that drives the broadest Service Provider adoption at the lowest cost;
- Serving **up to 500 million additional connected devices** by 2018 which require telephone numbers, including M2M; and
- Introducing **new security and authentication mechanisms** for telephone numbers to protect subscribers against spoofing, slamming, and spamming.

Costs of Transition

A transition of LNPA services to a new vendor would be a complex, high-risk effort with broadly distributed costs and no reasonable expectation of success. The Industry has consistently insisted upon stability of operations, low impacts to surrounding systems and networks, and zero adverse effects on subscribers. Choosing an Industry-wide cutover to a vendor with no relevant production experience will most certainly violate all three of these priorities and divert resources and Industry attention away from revenue-generating business priorities. [redacted]

A new NPAC/SMS implementation and transition would be far more complex and difficult than any coordinated implementation attempted by the Industry in the past:

- Unlike One-Day-Porting (which took 18 months) and WICIS 4.0 (which took 3 years), the entire Industry—over 1,000 Service Providers and their agents—would need to execute on a single schedule, necessitating complete precision of contingency planning and testing;

- Transitioning the NPAC/SMS would be a wholesale replacement of infrastructure to a new environment not yet hardened by any production experience—not an incremental enhancement to existing systems;

- Transition would require building not only NPAC/SMS technology, but also all essential LNPA services not currently detailed in the RFP—all of which would need to be designed and developed for continuity with the current service;

- Transition will require the transfer of over 750 Service Providers and vendor network connections to production, test, and disaster recovery facilities; and

- Transition will require the conversion and migration of hundreds of millions of **NPAC/SMS records, containing 12.1 billion mission-critical data elements**. Even small errors in conversion will impact millions of consumers.

All Service Providers and vendors will incur costs associated with an LNPA transition, including parties without regular participation in Industry forums. For the majority of carriers, these costs are unbudgeted and will outweigh any conceivable pricing benefit offered by an alternative vendor.

The material costs and risks associated with an LNPA transition are covered in four major categories, each of which factor in the Industry's assessment of competing offers—Implementation Costs, Scheduling and Governance, Subscriber Impacts, and Opportunity Cost.

How bad could an LNPA transition be? Ask United Airlines...

In 2012, United Airlines executed its long-planned cutover to a merged reservation system with Continental Airlines. In preparation, the company conducted extensive end-to-end systems testing. CEO Jeff Smisek was so confident of success that a few weeks before the transition, in an earnings call, he said "We've had four full-scale dress rehearsals, all the data transfers...we are exceedingly well prepared for it."

Instead, the migration was an unmitigated failure.

- On Day 1, over 70% of United flights from their airport hubs were delayed or cancelled.
- Phone lines were jammed and sales agents were confused. Travel agents publicly pilloried the company.
- Instability in the platform persisted for months on end. In fact, six months after the transition, a complete worldwide systems outage occurred that shut down, service and stranded thousands of flyers.
- United lost $723 million in 2012 – a swing of $1.6 billion from the previous year. Management blamed most of its financial problems on transition issues.
- In April 2013, the premier airline customer service survey reported United dead last in all customer service categories.
- United's Airline Quality Rating fell from -1.45 to -2.18 from 2011 to 2012. To this day, United's customer service ratings remain the worst in their industry.
- In the period following the transition, United was the subject of 34% of all airline industry complaints and 45% of refunds – increases of approximately 50% over the prior year.

Implementation Costs—Implementation of a technology infrastructure the size and complexity of the NPAC/SMS would take an experienced team a minimum of one year to develop, and one year to test. A new LNPA vendor can either use Neustar's software code as a baseline (recognizing that it is custom-tailored for Neustar's production environment and requires modification to meet increased SLRs) or develop and test a new platform and application from scratch, introducing considerable extra risk in delivering a compliant system by June 2015. Either way, the new vendor must define procedures for system performance monitoring and reporting, tailored to its own data center and network environment.

The NANC, the NAPM, LLC, and the LNPA Working Group are ultimately responsible for validating that the new NPAC/SMS behaves and performs exactly as the one operated by Neustar today. In addition, the Industry must fully define and ensure the successful delivery of the full array of LNPA requirements currently relied upon by Service Providers, vendors, regulators, law enforcement agencies, and consumers. These services will all need to be defined and implemented separately, before Day 1.

LNPA Requirements Not Fully Defined in RFP Specifications

LNPA Service	Industry Needs
[redacted]	[redacted]
Billing & Collections	Regional and Service Provider allocations and invoice processing—over 10,000 bills delivered each month
[redacted]	[redacted]
LNP Enhanced Analytical Platform	Law Enforcement/Public Safety support
[redacted]	[redacted]
NPAC.com	User registration and authorization, Service Provider knowledge base, Industry document registry

The new LNPA must also, with the Industry's assistance, establish all non-software elements of the service—each of which must be documented and detailed by the Industry, including Industry change administration, new user administration, Service Provider testing and training, performance monitoring and audits, and a comprehensive Neutrality program for employees, managers, and investors.

Scheduling and Governance—With only 15 months remaining between the FCC's LNPA selection and the start of the new contract term, the Industry lacks sufficient time to execute a transition to a new vendor. No transition will be complete until **ALL** Service Providers and their vendors are able to interoperate with the NPAC/SMS and the LNPA in the manner they do today—which implies that the entire schedule is dependent upon the last of over 1,000 Service Providers to successfully transition. This requires the Industry to appoint a single Project Manager that has the authority to make decisions on behalf of over 1,000 companies. The original RFP timeline allowed 30 months for all necessary tasks. Neustar estimates that it will take a minimum of 29 months given the impacts of a transition to all aspects of Service Provider operations. An extension of Neustar's contract for one year beginning July 1, 2015 will drive additional Industry expenses of [redacted]